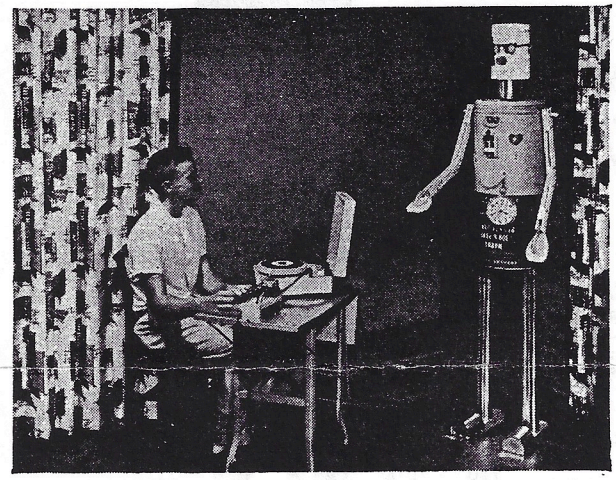
"GISMO" THE GREAT

By GLENN WAGNER



MEET "GISMO THE GREAT." He's next of kin to Sherwood Fuehrer's fantastic robot featured in the June '56 issue of BOYS' LIFE.

So much interest was shown in the story of the robot made by thirteen-year-old Sherwood Fuehrer that it became a "must" on the list of crafts projects for boys. This feature shows plans and details for assembling your own personal robot.

Gismo is not quite as marvelous as the robot in the recent movie, *Forbidden Planet*. He has no disintegrator ray attachments, nor can he whip up a 100-carat diamond for you; but he does speak any language, sing any song, and make like a whole symphony orchestra . . . provided you can supply him with the proper phonograph recordings.

This can be more than a crafts project. Once Gismo has been built, he can serve as a demonstration model in high school science classes. He is a fine publicity agent to advertise a church bazaar as a good turn to your sponsoring institution. He will make an exciting display in a Scout Week exhibit. In short, he may well become the talk of your town and lead to all kind of crazy adventures for you.

He stands 5'-10½" tall and operates by remote control. He moves his arms, holds things in his hands, turns his head, blinks his eyes, and has a big red heart that glows and beats as the light flashes on and off. He can answer questions "yes" or "no" with his bell and buzzer hookup. Most fantastic of all is his ability to talk or sing! With his loud speaker connected to a record player he can come up with the most unusual surprises.

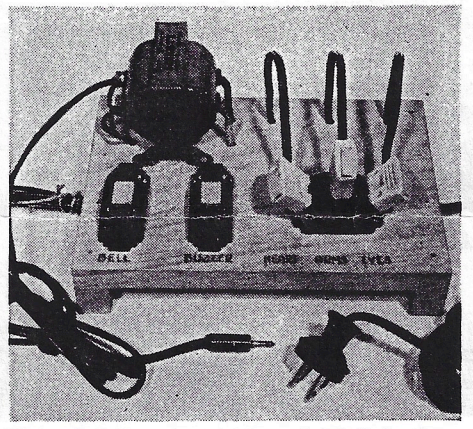
He's made mostly of tin cans and wood with standard electrical parts you can get at any electrical or hardware store. The motor is the only special item—an 8 r.p.m. geared reduction motor used for commercial displays. It is available through electrical supply houses or motor repair shops. You might rig up an old washing machine mechanism with a 1/10 hp motor or get an old furnace damper motor assembly. The reduction shaft should turn approximately 4 to 8 r.p.m. You can get a motor for $8.95 postpaid from Robot Motors, P.O. Box 262, Delmar, N. Y.

The motor, eyes, and heart are as easy to hook up as an ordinary lamp and run on 110-volt current; the bell and buzzer are simple wiring jobs and are connected to a bell transformer which also operates on 110 volts. Power enters the control panel through one 110-volt lead. Ordinary plastic covered lamp cord (#18, two wire) is used for all wiring because it is flexible. The speaker lead is connected to a phone plug which matches a jack installed in the record player.

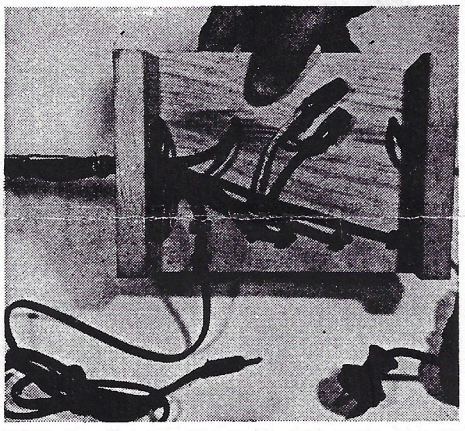
The large switch fastened to the front, as well as the oversize "Bulova" (an old alarm clock) and watch chain are just for fun and laughs. You can make your robot as simple or complicated as you like and you can substitute or add parts depending on what you can dig up.

Use the plans and ideas given here as a base from which you can let your own imagination run riot. If you think you can get his eyes to project movies, or make him dispense candy, or add other special gimmicks of your own, by all means go to it.

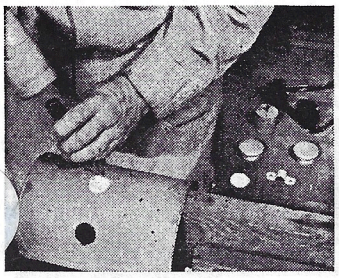
Robot operates by remote control through cable connected to control panel and record player.



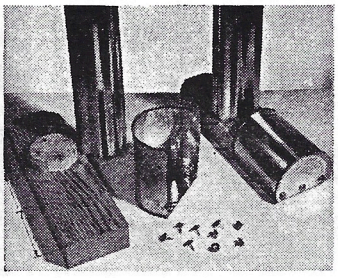
Parts: bell transformer, two doorbell buttons, surface outlet, and three "quick-clamp" plugs.



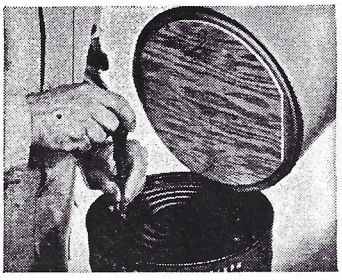
Wiring on bottom. Use insulated staples to hold wires. Two heavy wires are transformer leads.



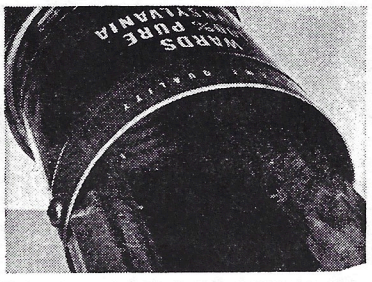
Use a paper pattern for locating hole centers and while cutting out the eye holes; note 2 x 4 support.



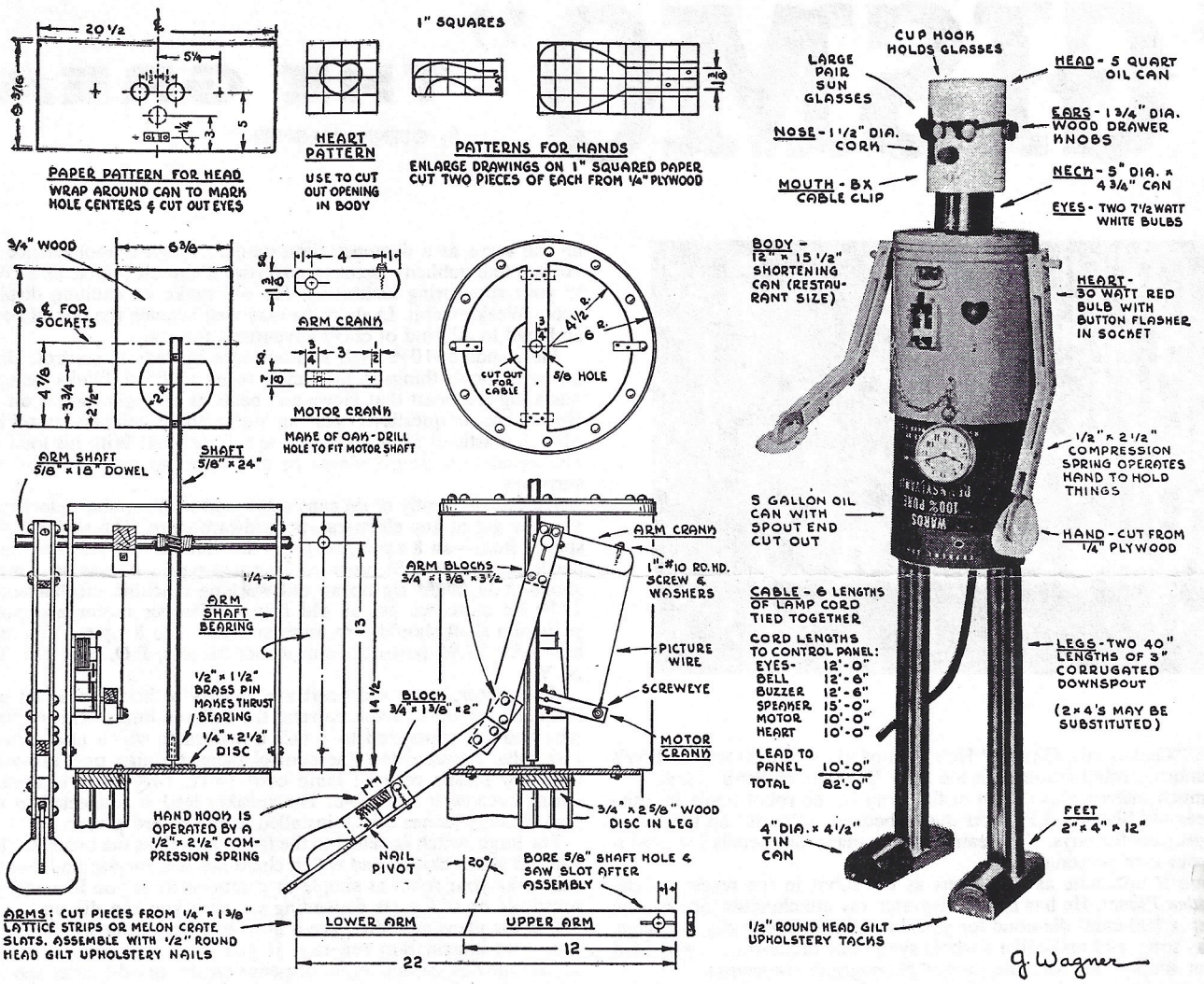
Legs and feet. Legs are nailed top and bottom to wood discs. Center of leg should be 7" from front edge.

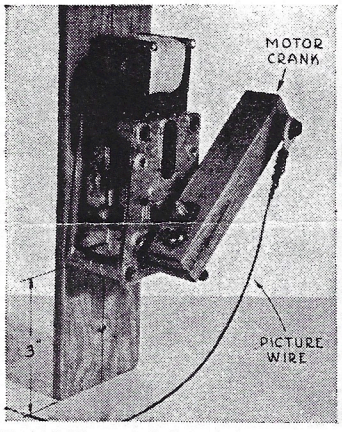


Two screws hold top of legs to can. An 11" diameter disc of ¼" plywood acts as a filler between the cans.

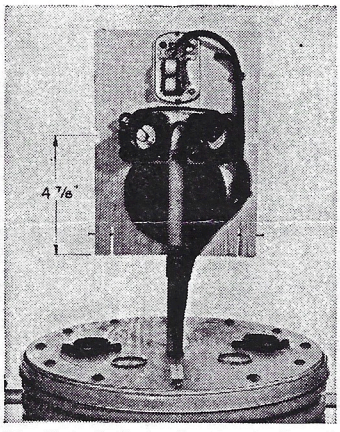


Legs are bolted to oil can with two 3/16" x 3½" carriage bolts; two 3/16" x ¾" bolts hold cans together.

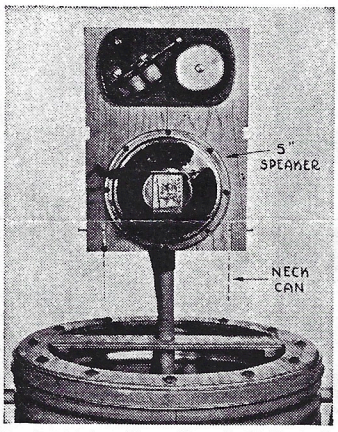

20 1/2
5 1/4
PAPER PATTERN FOR HEAD
WRAP AROUND CAN TO MARK HOLE CENTERS & CUT OUT EYES
HEART PATTERN
USE TO CUT OUT OPENING IN BODY
1" SQUARES
PATTERNS FOR HANDS
ENLARGE DRAWINGS ON 1" SQUARED PAPER CUT TWO PIECES OF EACH FROM 1/4" PLYWOOD
CUP HOOK HOLDS GLASSES
LARGE PAIR SUN GLASSES
HEAD - 5 QUART OIL CAN
EARS - 1 3/4" DIA. WOOD DRAWER KNOBS
NOSE - 1 1/2" DIA. CORK
NECK - 5" DIA. x 4 3/4" CAN
MOUTH - BX CABLE CLIP
EYES - TWO 7 1/2 WATT WHITE BULBS
BODY - 12" x 15 1/2" SHORTENING CAN (RESTAURANT SIZE)
HEART - 30 WATT RED BULB WITH BUTTON FLASHER IN SOCKET
3/4" WOOD
6 3/8
9
& FOR SOCKETS
4 7/8
3 3/4
2 1/2
22°
ARM CRANK
MOTOR CRANK
MAKE OF OAK - DRILL HOLE TO FIT MOTOR SHAFT
4 1/2 R.
6 R.
3
CUT OUT FOR CABLE
5/8 HOLE
ARM SHAFT 5/8" x 18" DOWEL
SHAFT 5/8" x 24"
1/2" x 2 1/2" COMPRESSION SPRING OPERATES HAND TO HOLD THINGS
5 GALLON OIL CAN WITH SPOUT END CUT OUT
HAND - CUT FROM 1/4" PLYWOOD
ARM BLOCKS 3/4" x 1 3/8" x 3 1/2
1/4
ARM SHAFT BEARING
13
14 1/2
1/2" x 1 1/2" BRASS PIN MAKES THRUST BEARING
1/4" x 2 1/2" DISC
BLOCK 3/4" x 1 3/8" x 2"
1" - #10 RD. HD. SCREW & WASHERS
PICTURE WIRE
SCREWEYE
MOTOR CRANK
CABLE - 6 LENGTHS OF LAMP CORD TIED TOGETHER
CORD LENGTHS TO CONTROL PANEL:
EYES- 12'-0"
BELL 12'-6"
BUZZER 12'-6"
SPEAKER 15'-0"
MOTOR 10'-0"
HEART 10'-0"
LEAD TO PANEL 10'-0"
TOTAL 82'-0"
LEGS - TWO 40" LENGTHS OF 3" CORRUGATED DOWNSPOUT
(2 x 4's MAY BE SUBSTITUTED)
HAND HOOK IS OPERATED BY A 1/2" x 2 1/2" COMPRESSION SPRING
NAIL PIVOT
20°
BORE 5/8" SHAFT HOLE & SAW SLOT AFTER ASSEMBLY
3/4" x 2 5/8" WOOD DISC IN LEG
4" DIA. x 4 1/2" TIN CAN
FEET 2" x 4" x 12"
ARMS: CUT PIECES FROM 1/4" x 1 3/8" LATTICE STRIPS OR MELON CRATE SLATS. ASSEMBLE WITH 1/2" ROUND HEAD GILT UPHOLSTERY NAILS
LOWER ARM
UPPER ARM
12
22
1/2" ROUND HEAD GILT UPHOLSTERY TACKS
g. Wagner



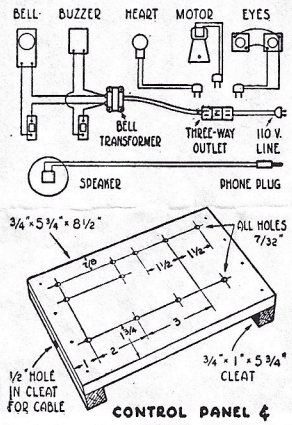
Two ¼" stove bolts clamp motor crank tight on arm shaft bearing.



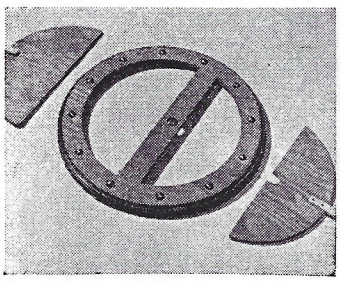
Headboard shows buzzer and eye sockets mounted on 2⅝" centers.



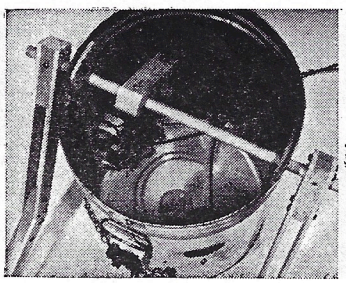
Back of headboard with bell and speaker. Notches clear ear screws.



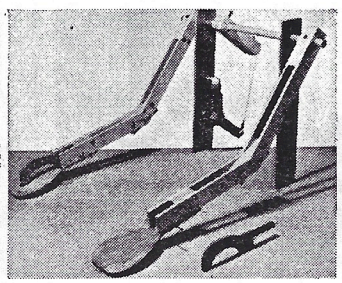
CONTROL PANEL & WIRING PLAN



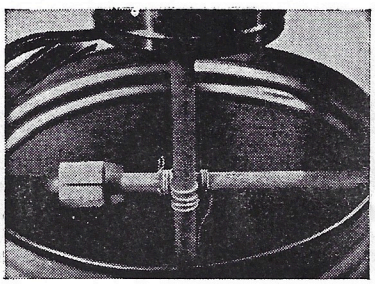
A 12" plywood disc nailed to cut-out can top with upholstery nails makes trap doors and shaft bearing.



A bird's-eye view of the can showing motor and heart socket installation. Disc in bottom is for end of shaft.



Arm and motor assembly before installation. Picture wire is adjusted for length after installation.



This simple builder's cord belt arrangement provides a friction drive for turning the head back and forth.